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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/045,263	11/07/2001	Xiao Ming Tang	414-23747-US	2279

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EXAMINER

WONG, ALBERT KANG

ART UNIT PAPER NUMBER

2635

DATE MAILED: 08/02/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Notice of Allowability	Application No.	Applicant(s)	
	10/045,263	TANG ET AL.	
	Examiner	Art Unit	
	Albert K Wong	2635	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to the application filed November 7, 2001.
2. ☒ The allowed claim(s) is/are 1-21,31-43,52 and 54.
3. ☒ The drawings filed on 07 November 2001 are accepted by the Examiner.
4. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☐ All b) ☐ Some* c) ☐ None of the:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
 6. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

- | | |
|--|--|
| 1. <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 5. <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 2. <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 6. <input type="checkbox"/> Interview Summary (PTO-413),
Paper No./Mail Date _____. |
| 3. <input checked="" type="checkbox"/> Information Disclosure Statements (PTO-1449 or PTO/SB/08),
Paper No./Mail Date <u>see attachment</u> | 7. <input checked="" type="checkbox"/> Examiner's Amendment/Comment |
| 4. <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit
of Biological Material | 8. <input checked="" type="checkbox"/> Examiner's Statement of Reasons for Allowance |
| | 9. <input type="checkbox"/> Other _____. |

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1. This Office action is in response to the application filed November 7, 2001. Claims 1-54 are pending. The IDSs filed March 1, 2002, October 30, 2002, February 20, 2003, and November 10, 2003 are acknowledged.

2. This application contains claims directed to the following patentably distinct species of the claimed invention: Species I is directed toward a logging apparatus and method where the transmitter produces a signal with a frequency below the cutoff frequency of the collar and species II is directed toward a logging apparatus and method where the transmitter produces a signal comprising a formation mode and a collar mode and the receiver filters the received signal for frequencies below the cutoff frequency of the drill collar.

Applicant is required under 35 U.S.C. 121 to elect a single disclosed species for prosecution on the merits to which the claims shall be restricted if no generic claim is finally held to be allowable. Currently, none of the claims are generic.

Applicant is advised that a reply to this requirement must include an identification of the species that is elected consonant with this requirement, and a listing of all claims readable thereon, including any claims subsequently added. An argument that a claim is allowable or that all claims are generic is considered nonresponsive unless accompanied by an election.

Upon the allowance of a generic claim, applicant will be entitled to consideration of claims to additional species which are written in dependent form or otherwise include all the limitations of an allowed generic claim as provided by 37 CFR 1.141. If claims are added after the election, applicant must indicate which are readable upon the elected species. MPEP § 809.02(a).

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Should applicant traverse on the ground that the species are not patentably distinct, applicant should submit evidence or identify such evidence now of record showing the species to be obvious variants or clearly admit on the record that this is the case. In either instance, if the examiner finds one of the inventions unpatentable over the prior art, the evidence or admission may be used in a rejection under 35 U.S.C. 103(a) of the other invention.

3. During a telephone conversation with Kaushik Sriram on July 26, 2004 a provisional election was made without traverse to prosecute the invention of Species I, claims 1-21, 31, 33-43, 52, and 54. Affirmation of this election must be made by applicant in replying to this Office action. Claims 22-30, 32, 44-51, and 53 are withdrawn from further consideration by the examiner, 37 CFR 1.142(b), as being drawn to a non-elected invention.

4. Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a request under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).

5. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Kaushik Sriram on July 26, 2004.

The application has been amended as follows:

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Please cancel claims 22-30, 32, 44-51, and 53.

In claim 1, line 5 insert "acoustic" before "transmitter"

In claim 31, lines 5 and 9, insert "acoustic" before "transmitter"

In claim 32, lines 5 and 7, insert "acoustic" before "transmitter"

In claim 34, line 6 insert "acoustic" before "transmitter"

In claim 52, lines 6 and 10, insert "acoustic" before "transmitter"

In claim 54, line 6 insert "acoustic" before "transmitter"

6. Claims 1-21, 31-43, 52, and 54 are allowed.

7. The following is an examiner's statement of reasons for allowance: The claims recites an acoustic logging apparatus and a method for measuring parameters in a subsurface formation using an acoustic transmitter wherein the acoustic frequency is below the cutoff frequency of the collar. While Hsu 6,631,327 teaches this principle, it is determined not to anticipate or make obvious the claims because it does not constitute prior art. Applicant is entitled to the filing date of the provisional application (November 13, 2000) while the effective filing date of the Hsu reference is September 21, 2001. The prior art of record does not teach or make obvious the claimed invention.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

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8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Albert K Wong whose telephone number is 703-305-8884. The examiner can normally be reached on M-Th.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Horabik can be reached on 703-305-4704. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Albert K. Wong
July 26, 2004